

Claims

1. An audio post processing method comprising the following sequenced steps:

matrix mixing an audio signal, then

decoding a surround channel of the audio signal, then

directing a low frequency input channel of the signal to a low frequency effect compatible speaker,

transmitting an ambient noise containing channel of the signal to a speaker system operable to create a three dimensional effect, then

center channel equalizing the input signal.

2. The audio post processing method according to claim 1, further comprising matrix mixing the signal by applying a downmixing algorithm.

3. The audio post processing method according to claim 1, further comprising matrix mixing the signal by applying a Prologic algorithm.

4. The audio post processing method according to claim 1, further comprising driving a centrally-located loudspeaker with a center channel of the signal.

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10. An audio post processing method comprising the following ordered steps:

matrix mixing an audio signal, then

directing low frequency input channels to a bass

applying a headphone algorithm.

11. The audio post processing method according to claim 10,

12. The audio post processing method according to claim 10,
further comprising matrix mixing the signal by applying a Prologic algorithm.

13. The audio post processing method according to claim 10,
further comprising driving the headphone speaker with a center channel of the
signal.

14. The audio post processing method according to claim 10, further comprising driving the headphone speaker with a surround channel of the signal.

15. The audio post processing method according to claim 10,
further comprising transmitting ambient noise to the headphone speaker.

16. The audio post processing method according to claim 10,
further comprising inputting a listener preference and available equipment
status into a player console, wherein the listener preference reflects a desired
post processing effect.

17. An audio post-processing system, comprising:
a plurality of decoders operable to perform the
following sequenced steps:
matrix mixing an audio signal, then
decoding a surround channel of the audio signal, then
directing a low frequency input channel of the signal to
a low frequency effect compatible speaker,
transmitting an ambient noise containing channel of the
signal to a speaker system operable to create a three dimensional effect, then
center channel equalizing the input signal;
a player console operable to receive system listener
input;

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a signal source producing a signal comprised of a plurality of channels, each channel operable to drive a loudspeaker positioned at one or more of a plurality of destinations.

18. The audio post-processing system of claim 17, further comprising output amplifiers operable to drive a loudspeaker positioned at one or more of the following positions relative a listener: front, right, left and rear.

19. The audio post-processing system of claim 17, further comprising output amplifiers operable to drive a headphone speaker.

20. The audio post-processing system of claim 17, wherein said listener input reflects listener preference and the disposition of available equipment.

21. The audio post-processing system of claim 17, further comprising surround sound channel output amplifiers driving loudspeakers positioned towards the rear and toward the sides of the listener.

22. The audio post-processing system of claim 17, further comprising a center channel equalizer output amplifier driving a loudspeaker positioned towards the front and center of the listener.

23. The audio post-processing system of claim 17, further comprising a bass channel amplifier driving a low frequency effect loudspeaker.

24. The audio post-processing system of claim 17, wherein said decoders utilizes DCS techniques said to direct ambient noise channels of the audio signal to loudspeakers positioned towards the rear of the listener.

25. The audio post-processing system of claim 17, wherein said decoders utilize said VES algorithm to direct an ambient noise channel of the audio signal to loudspeakers positioned towards the front of the listener.

26. The audio post-processing system of claim 17, wherein said decoders create a center channel of the audio signal for driving a loudspeaker that is centrally located with respect to the listener.

27. The audio post-processing system of claim 17, wherein said decoders create a surround sound channel for ambient noise for driving two loudspeakers that are located to the right and left behind the listener.

28. An audio post-processing system, comprising:

30 containing channel of the signal to the speaker system operable to create the three dimensional effect, and center channel equalizing the input signal;

i) matrix mixing the signal, decoding the surround channel, and center channel equalizing the input signal;

35 j) matrix mixing the signal, directing the low frequency input channel of the signal to the low frequency effect compatible speaker, and center channel equalizing the input signal;

k) matrix mixing the audio signal, transmitting the ambient noise containing channel of the signal to the speaker system operable to create the three dimensional effect, and center channel equalizing the input signal;

40 l) matrix mixing the audio signal, decoding the surround channel of the signal, directing the low frequency input channel of the signal to the low frequency effect compatible speaker, and center channel equalizing the input signal;

45 m) matrix mixing the audio signal, directing the low frequency input channel of the signal to the low frequency effect compatible speaker, transmitting the ambient noise containing channel of the signal to the speaker system operable to create the three dimensional effect, and center channel equalizing the input signal;

50 n) matrix mixing and center channel equalizing the signal;

wherein matrix mixing always precedes decoding the surround channel,
directing the low frequency input channel, transmitting the ambient noise
containing channel, and center channel equalizing the signal,

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